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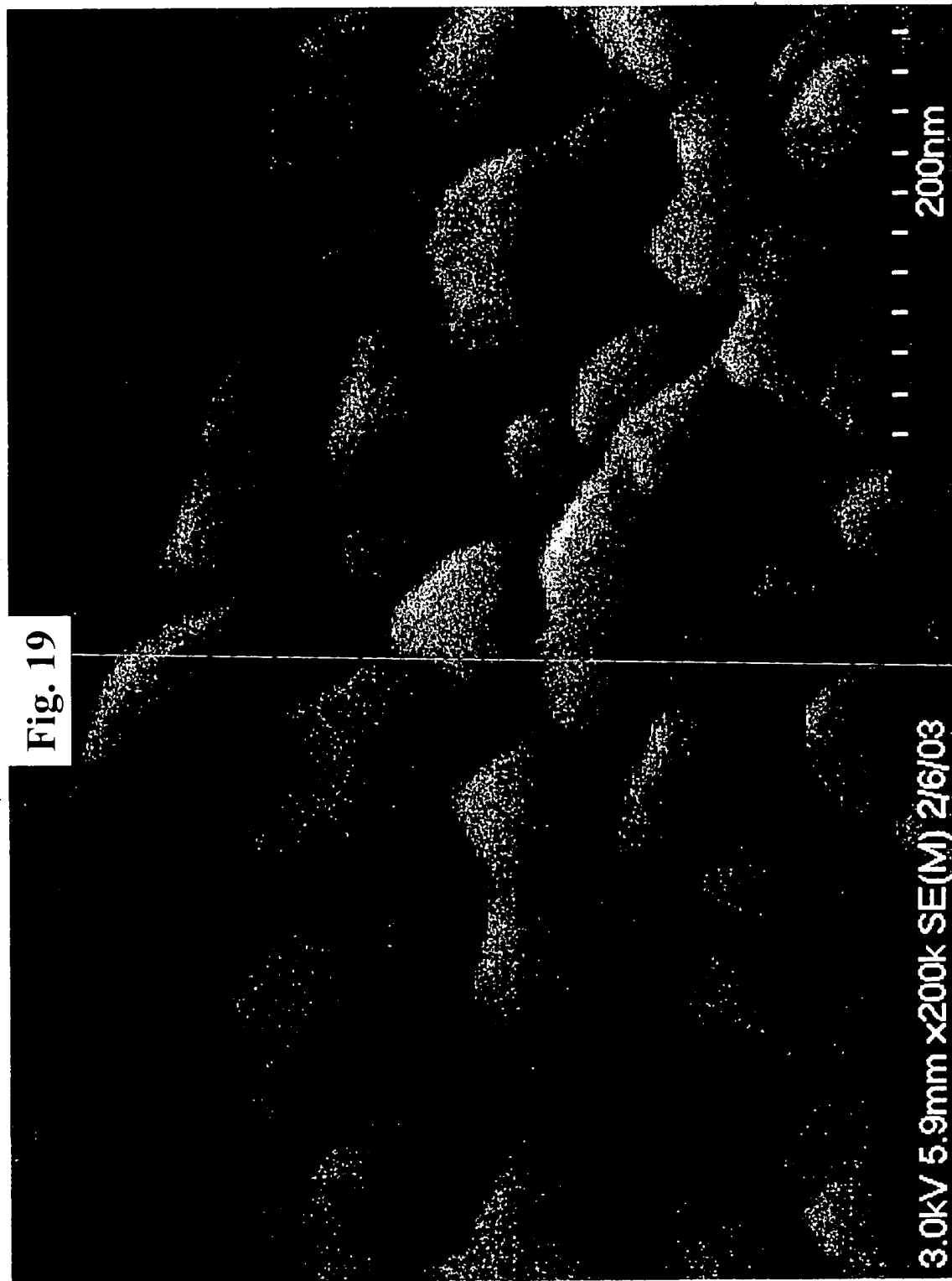
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Fig. 19



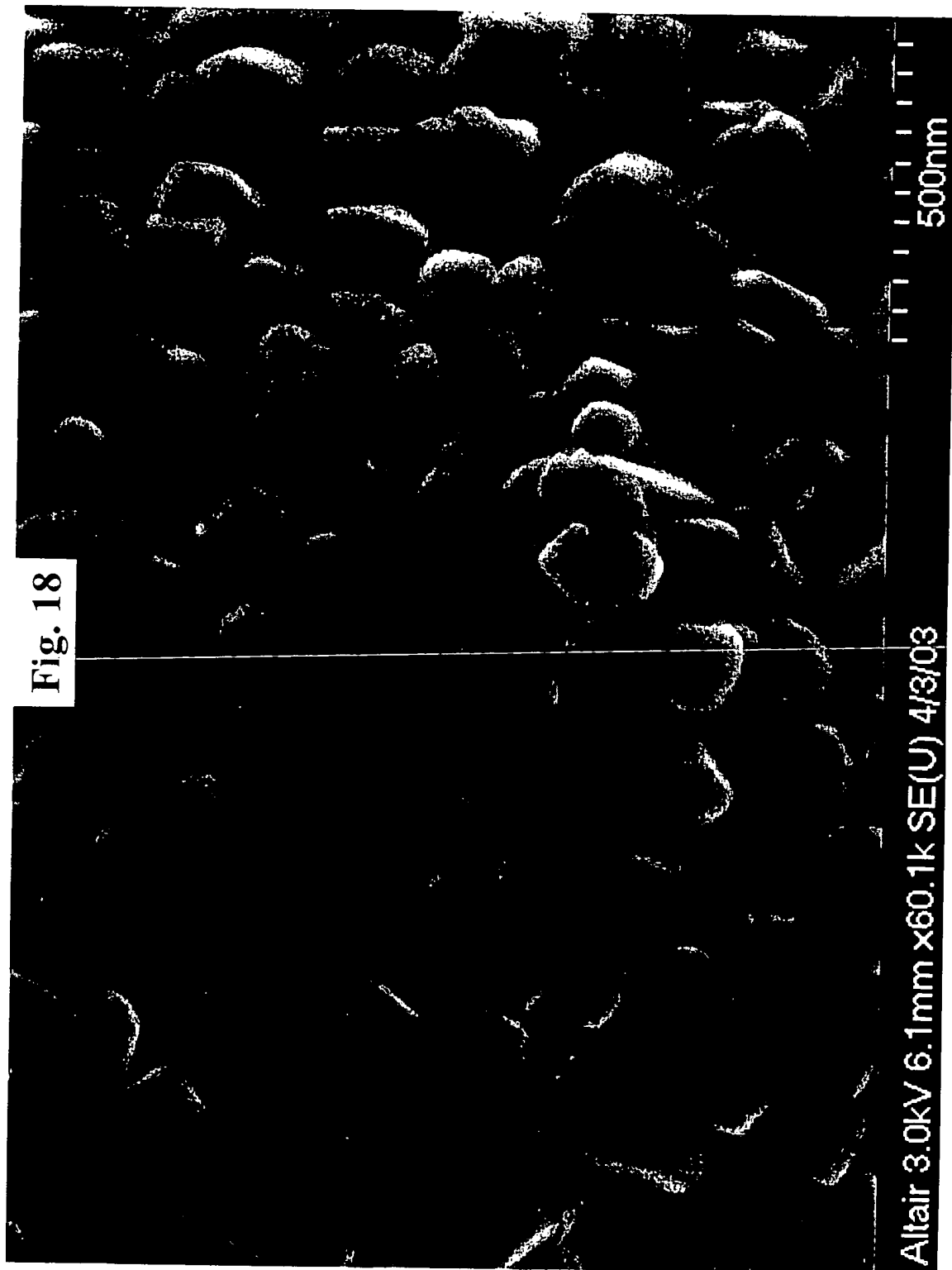


Fig. 18

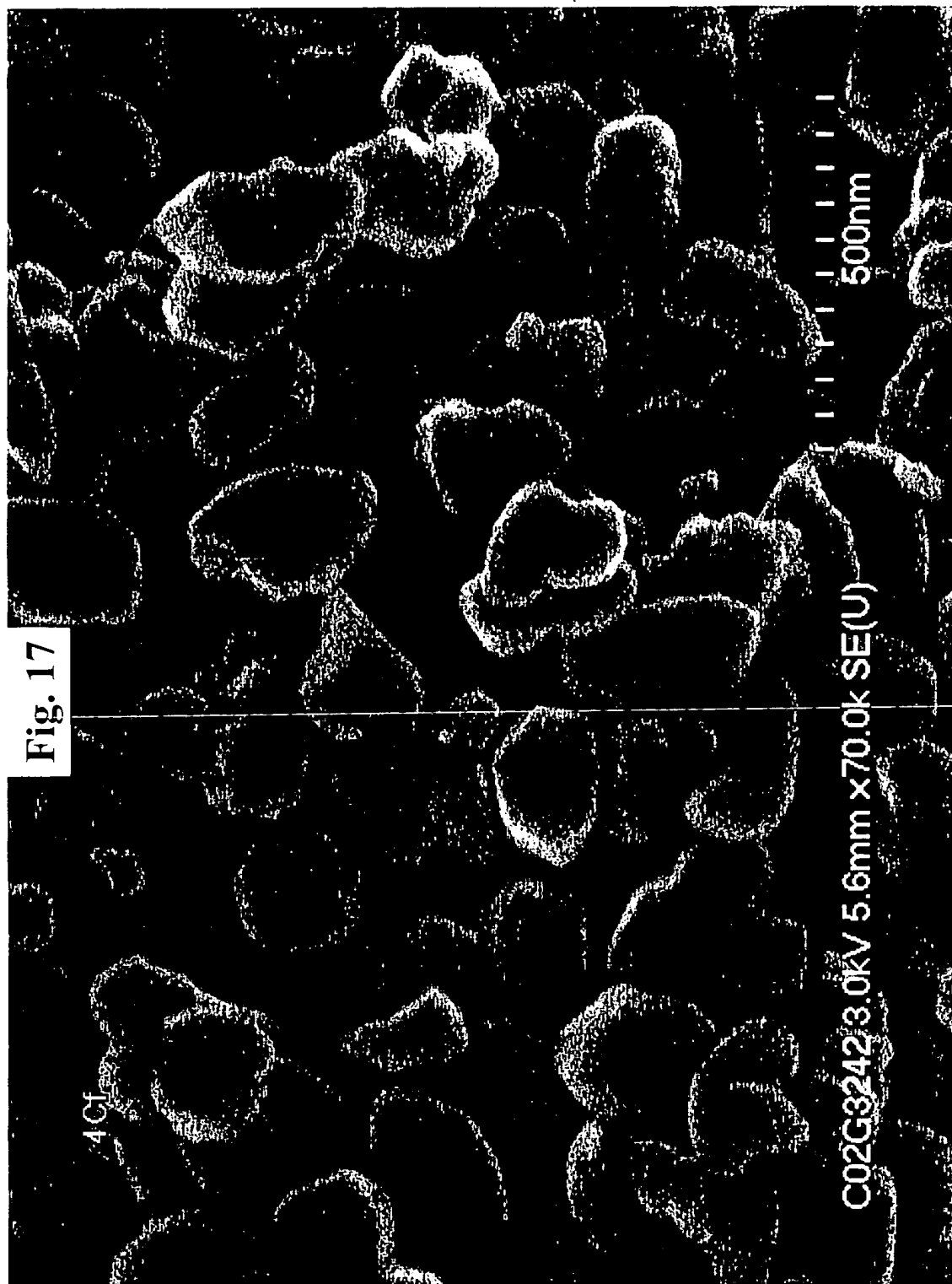


Fig. 17

4 Cf

C02G3242 3.0kV 5.6mm x70.0k SE(U)

500nm

Fig. 16
L85DCW Milling Profile Monitored by the Coulter Particle
Size Analyzer LS230.

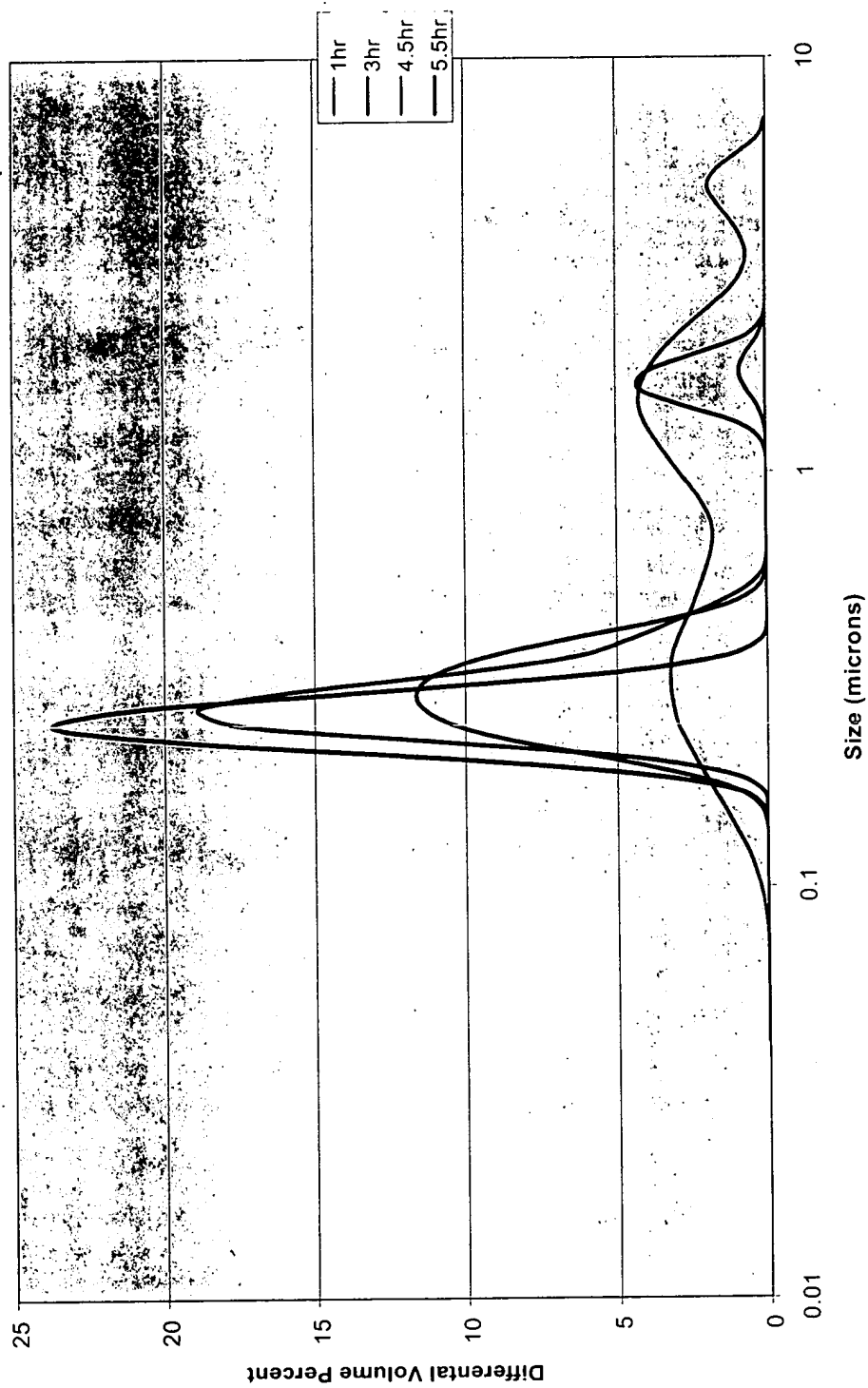


Fig. 15

XRD scan of the washed pigment base, calcined at 550°C.
Card 21-1276 matches-phase pure rutile.

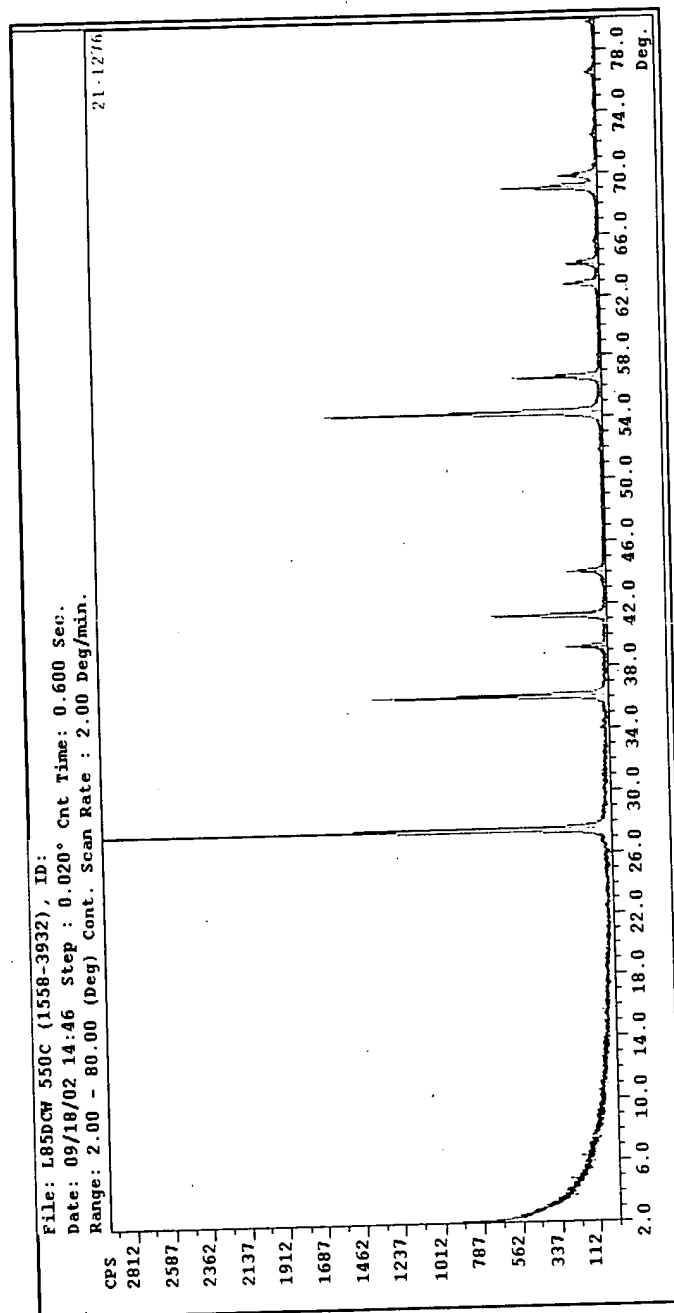
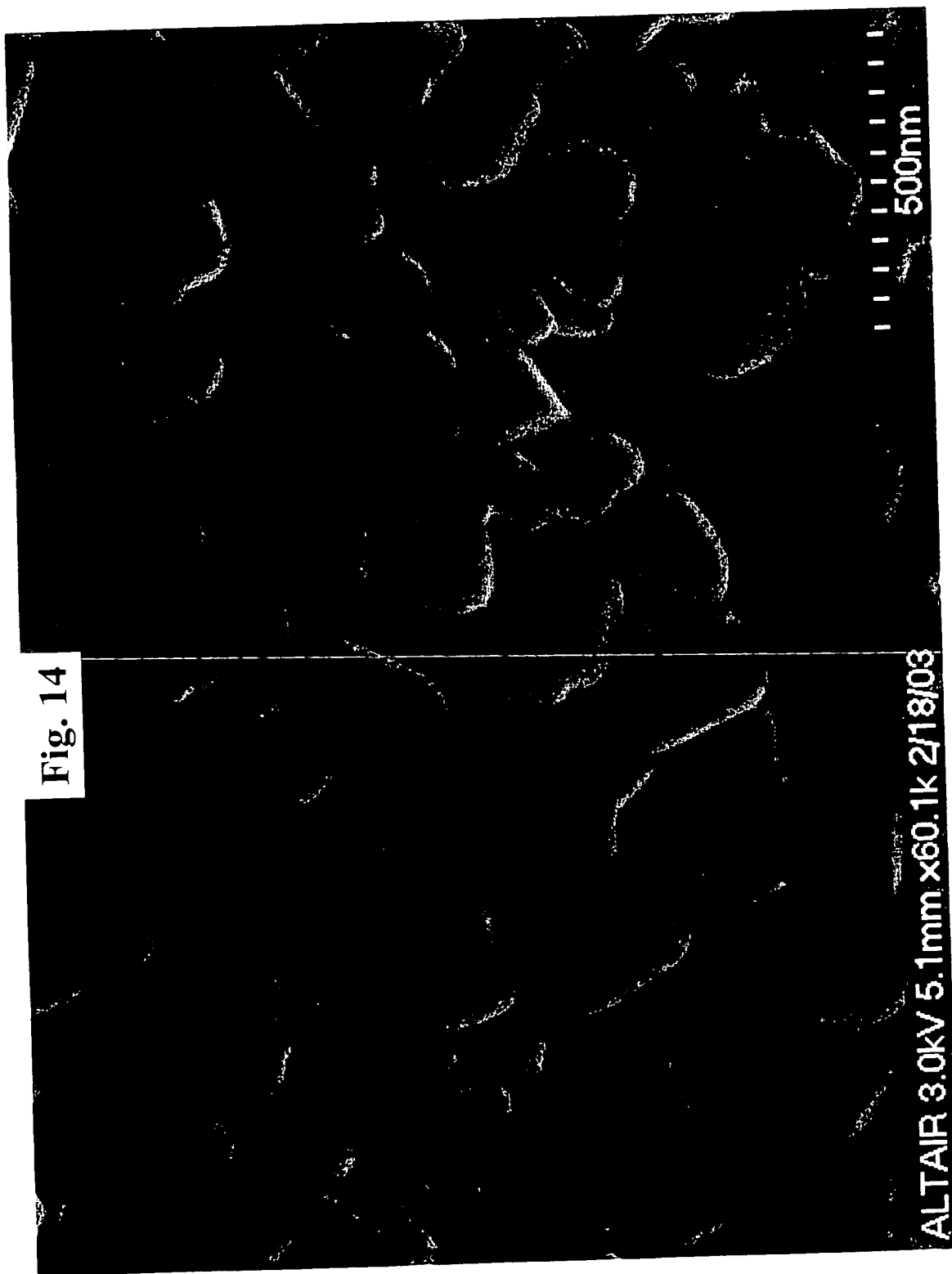
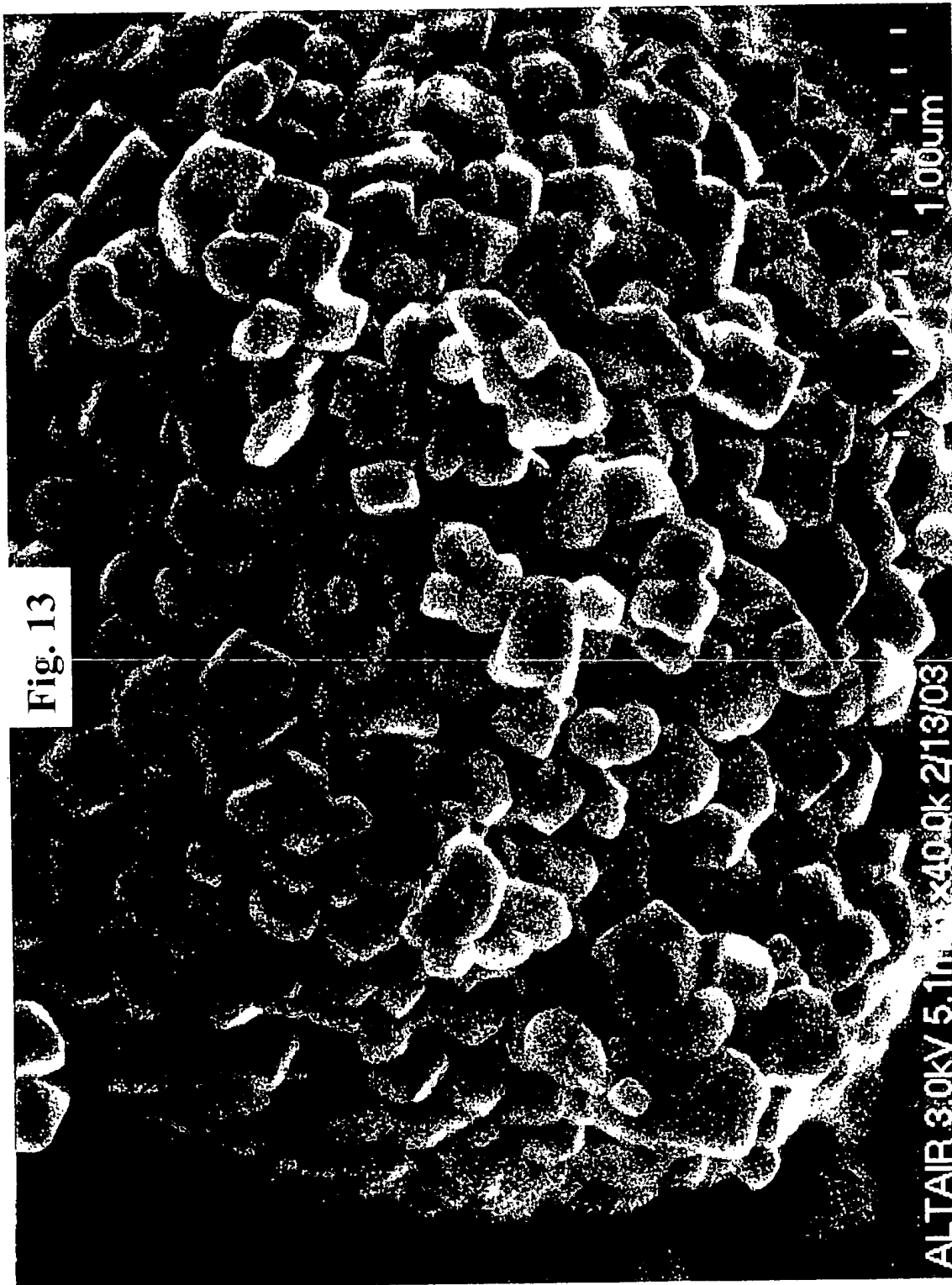


Fig. 14





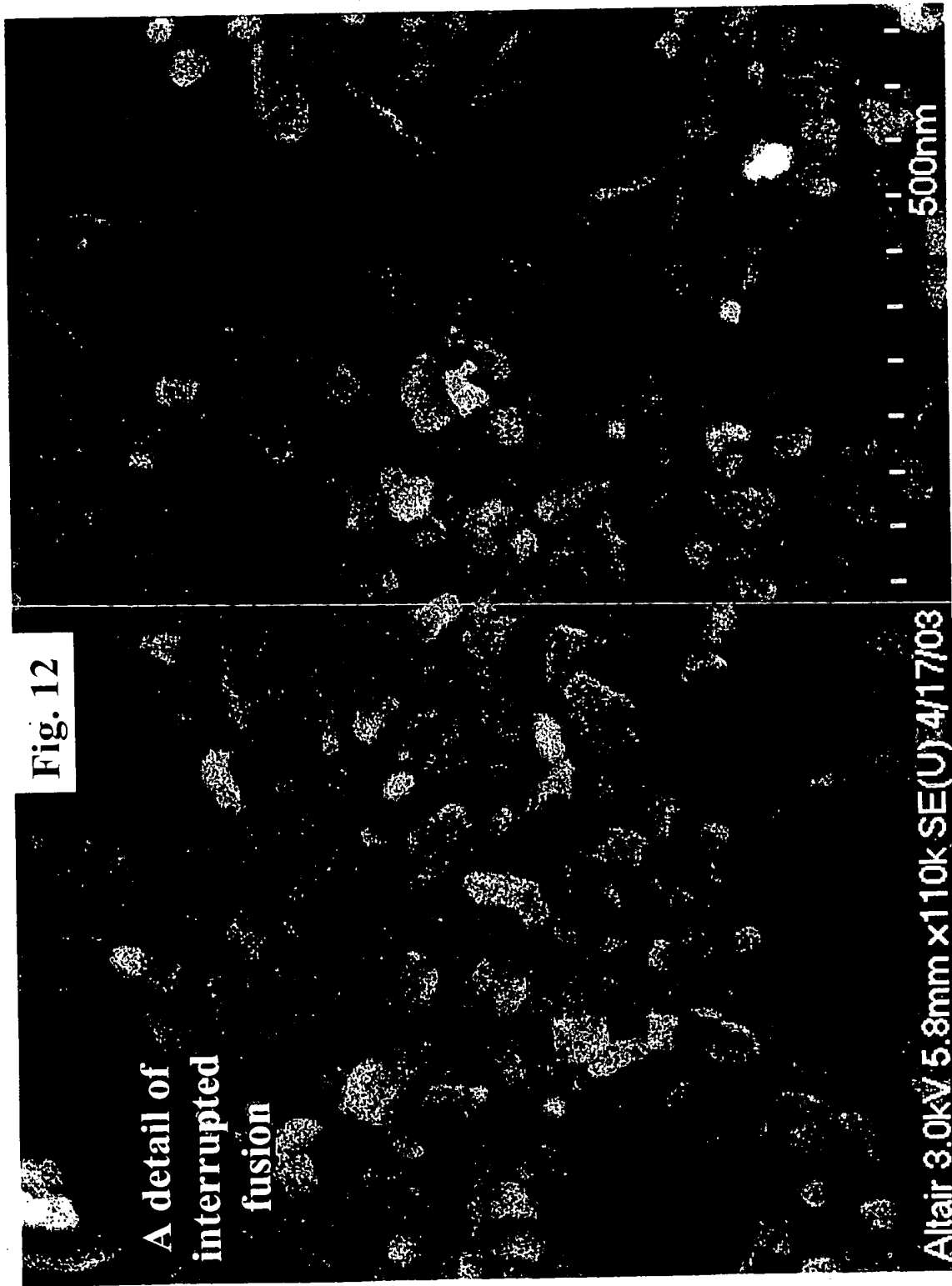


Fig. 12

**A detail of
interrupted
fusion**

Altair 3.0kV 5.8mm x110k SE(U) 4/17/03

Fig. 11a

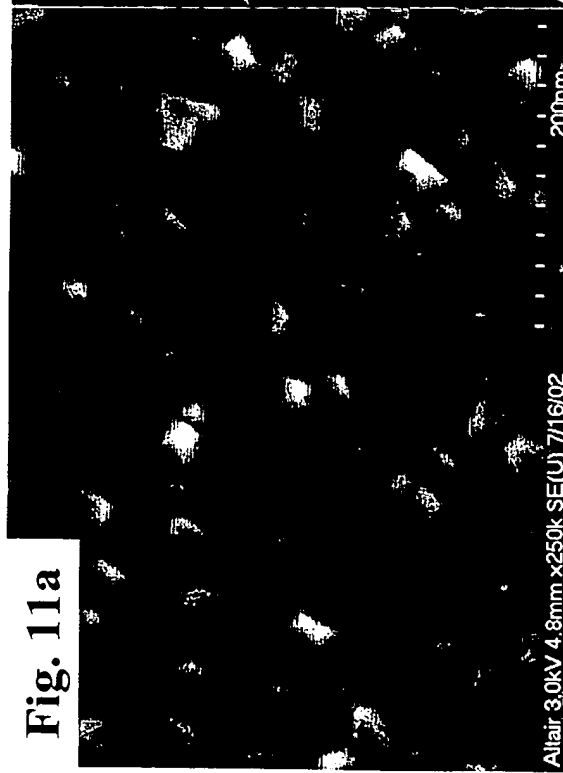


Fig. 11b

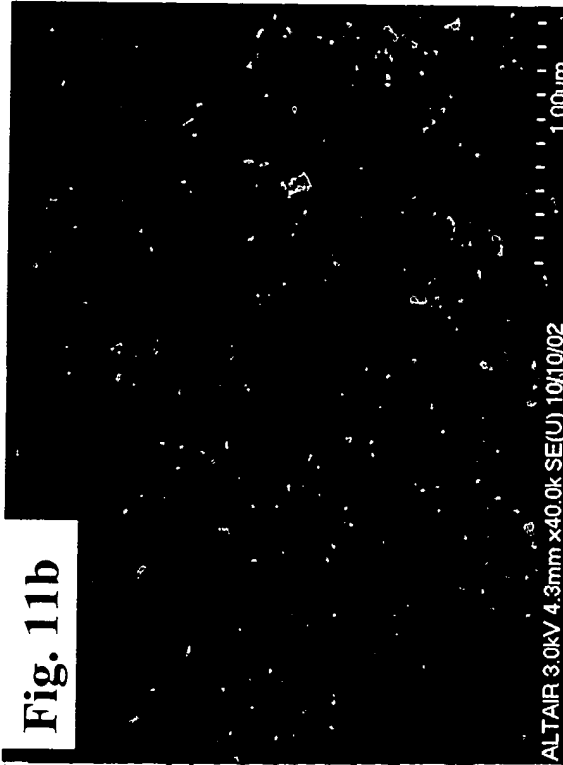


Fig. 11c



Fig. 11d



Fig. 10

One minute calcination at 625°C

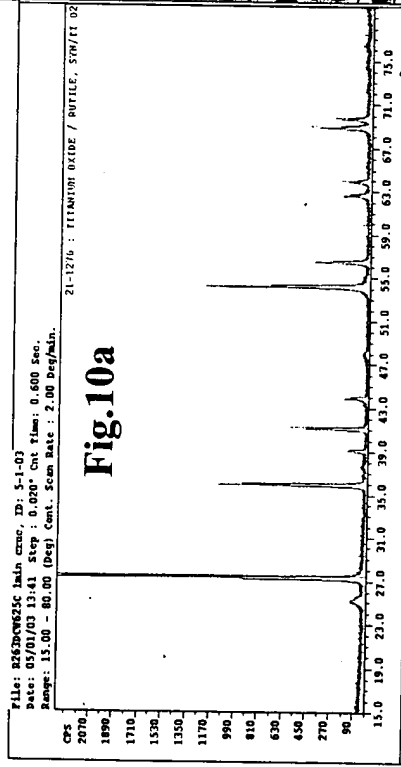


Fig10a. XRD pattern of 625°C/1 minute flash calcined material-only traces of anatase phase are present.

Fig10b. SEM image of the flash calcined product shows that rutile formed very fast to well developed crystals of the right particle size.

Fig10c. SEM image of flash calcined material-detail of rutile fused crystals and some traces of small anatase phase.



Fig. 10c



Fig. 9a

1. Brookite/Anatase disappearance-detail

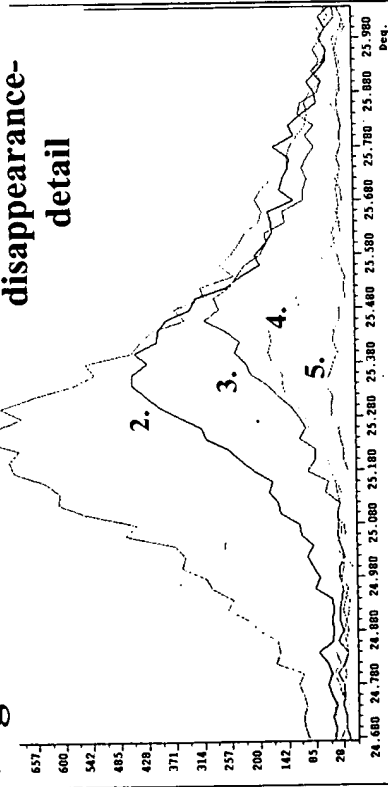


Fig. 9b

5. Rutile growth-detail

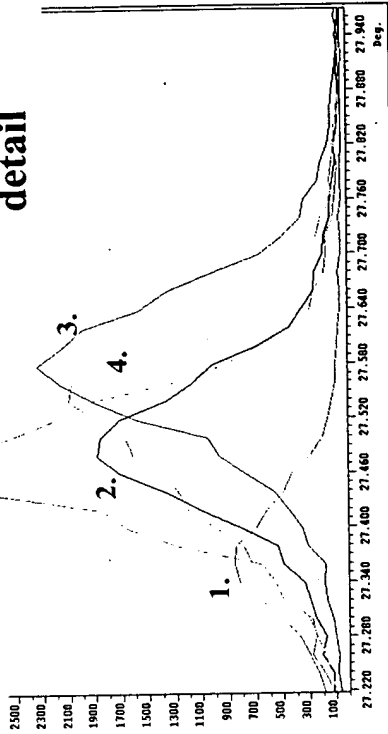
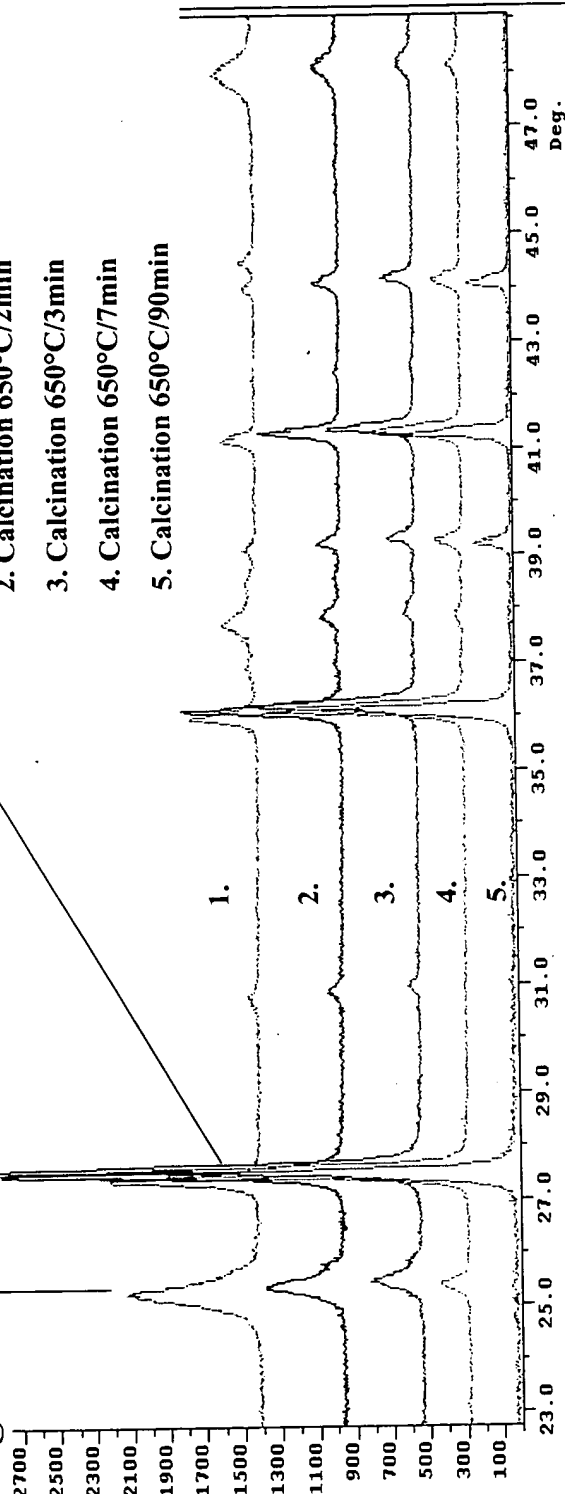


Fig. 9



1. Calcination 650°C/1min
2. Calcination 650°C/2min
3. Calcination 650°C/3min
4. Calcination 650°C/7min
5. Calcination 650°C/90min

Fig 8.
CALCINATION PROCESS AT 650°C.

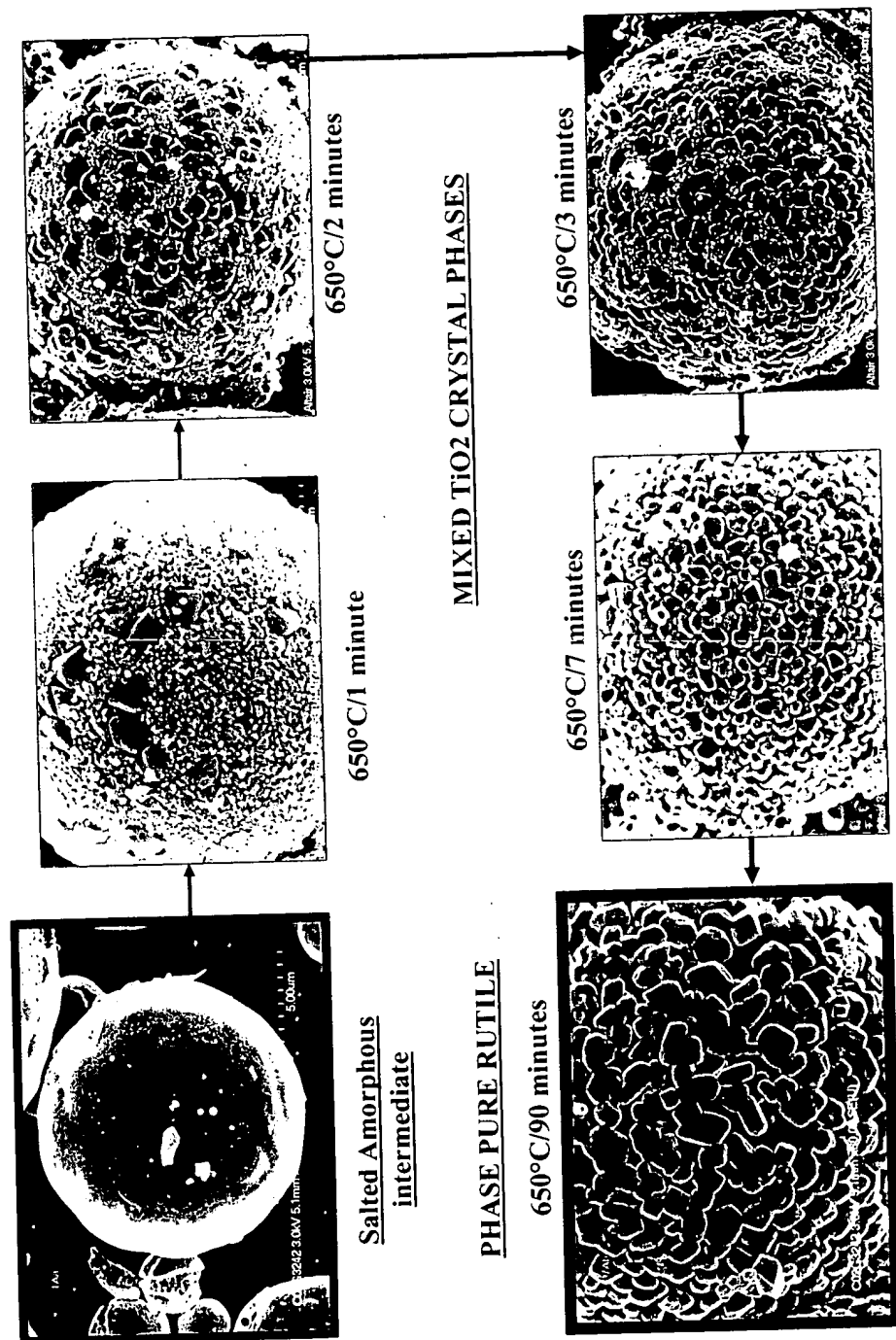
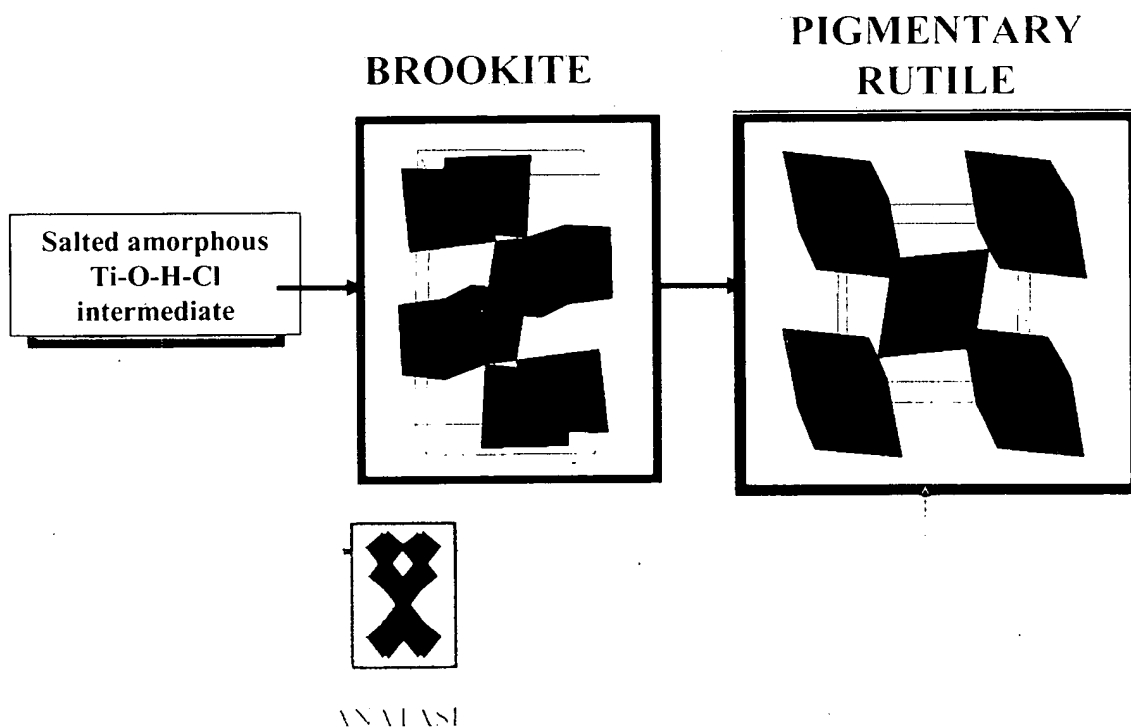


Fig 7.

**AMORPHOUS INTERMEDIATE → RUTILE LOW
TEMPERATURE CONVERSION PATHWAY.**



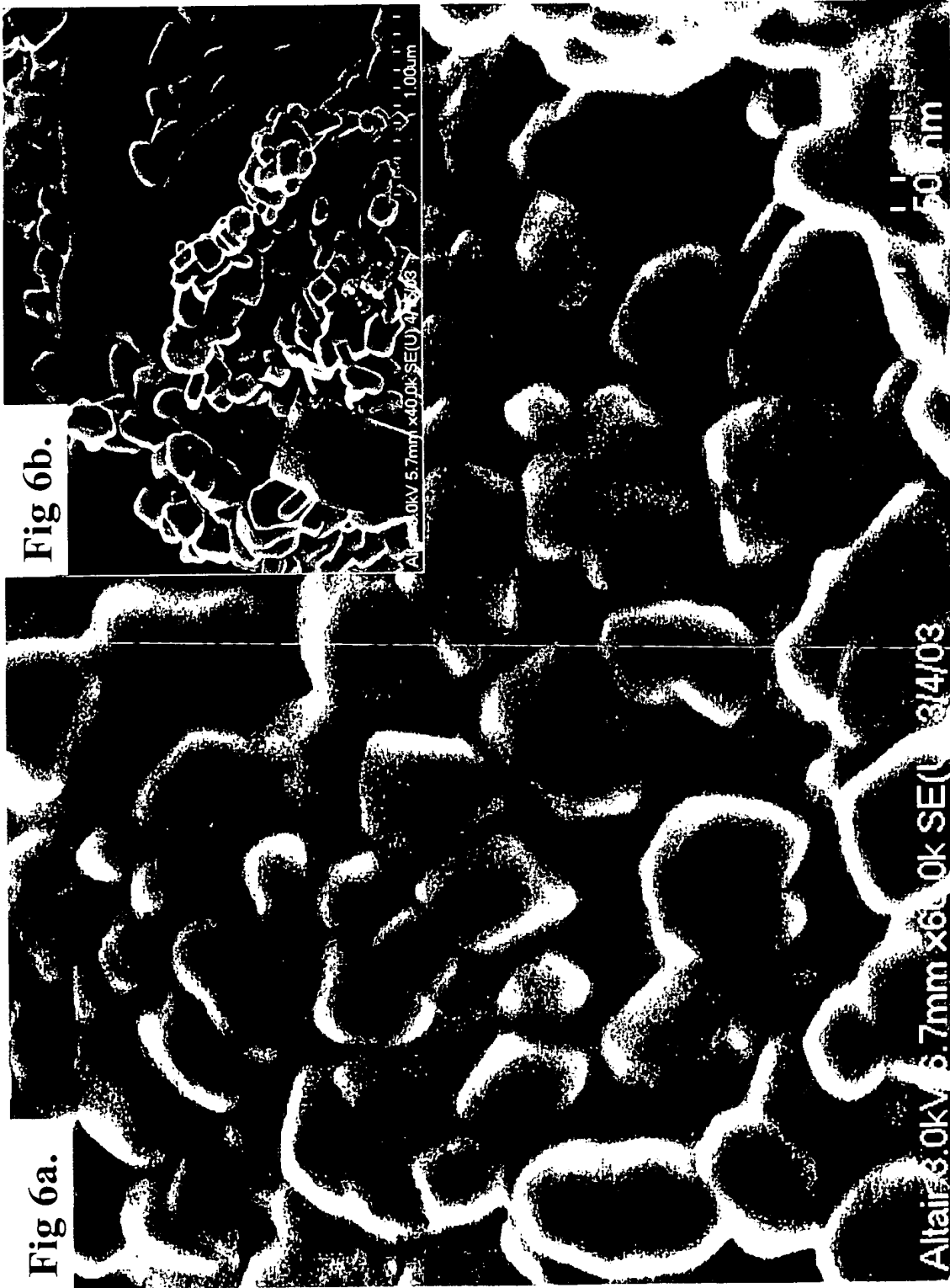
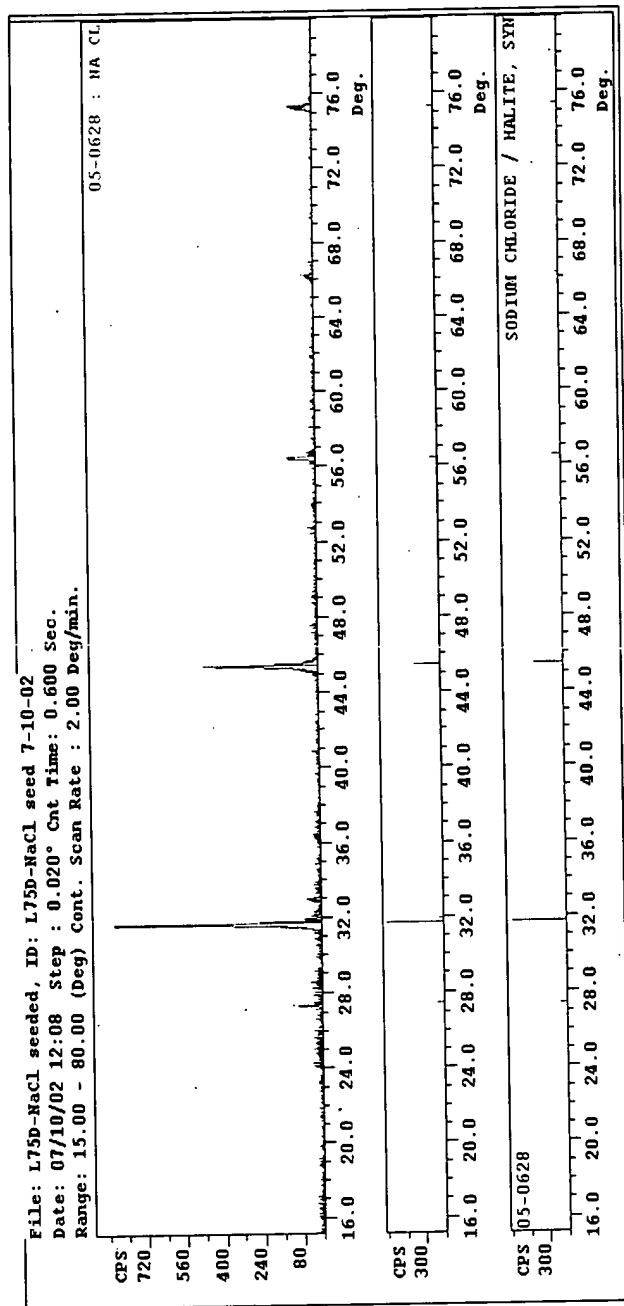


Fig 5.
XRD scan of NaCl salted Ti-O-Cl-H amorphous
intermediate.

No TiO₂ crystal forms were detected by the XRD.



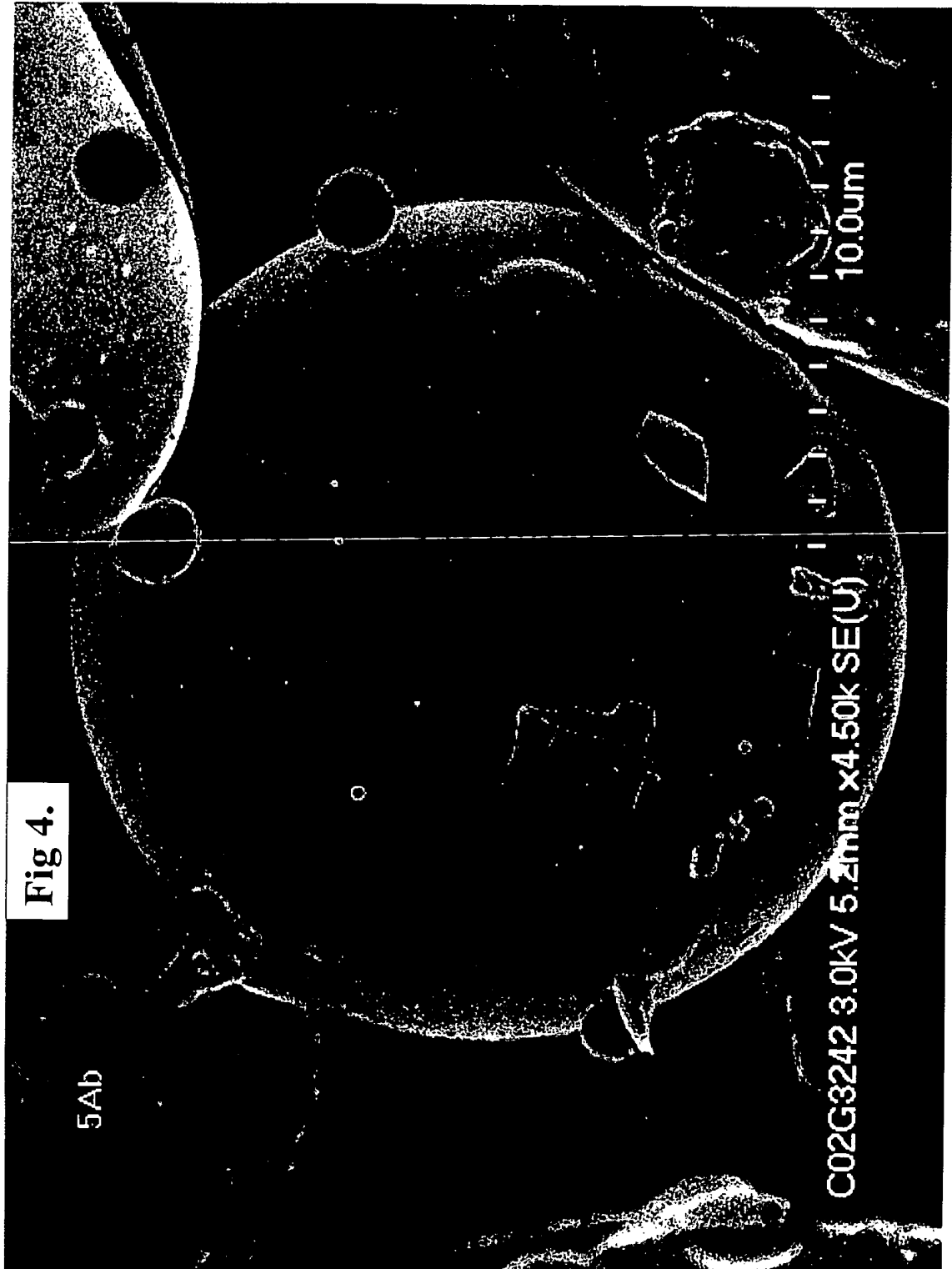


Fig 4.

5Ab

Fig 1.

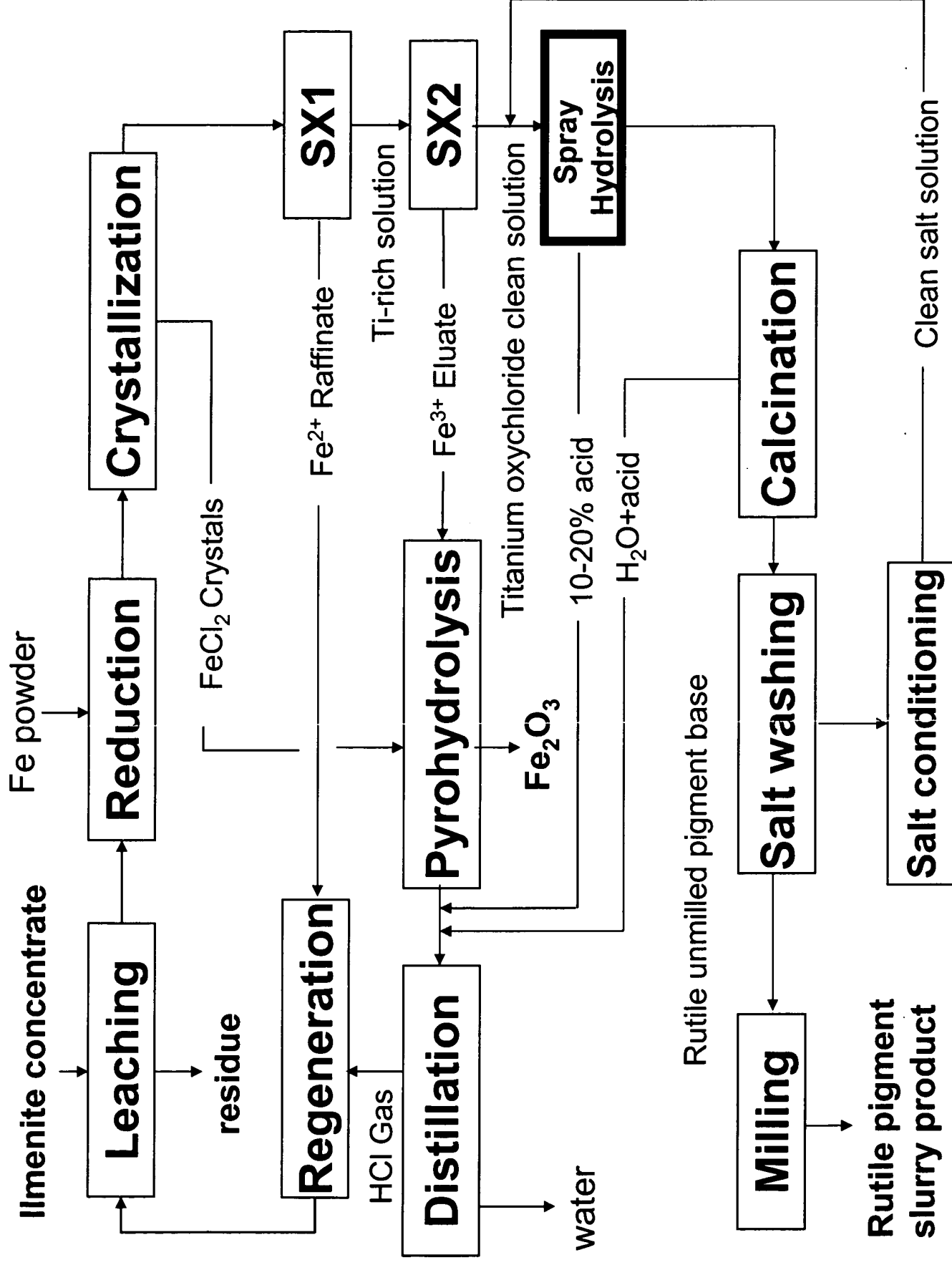
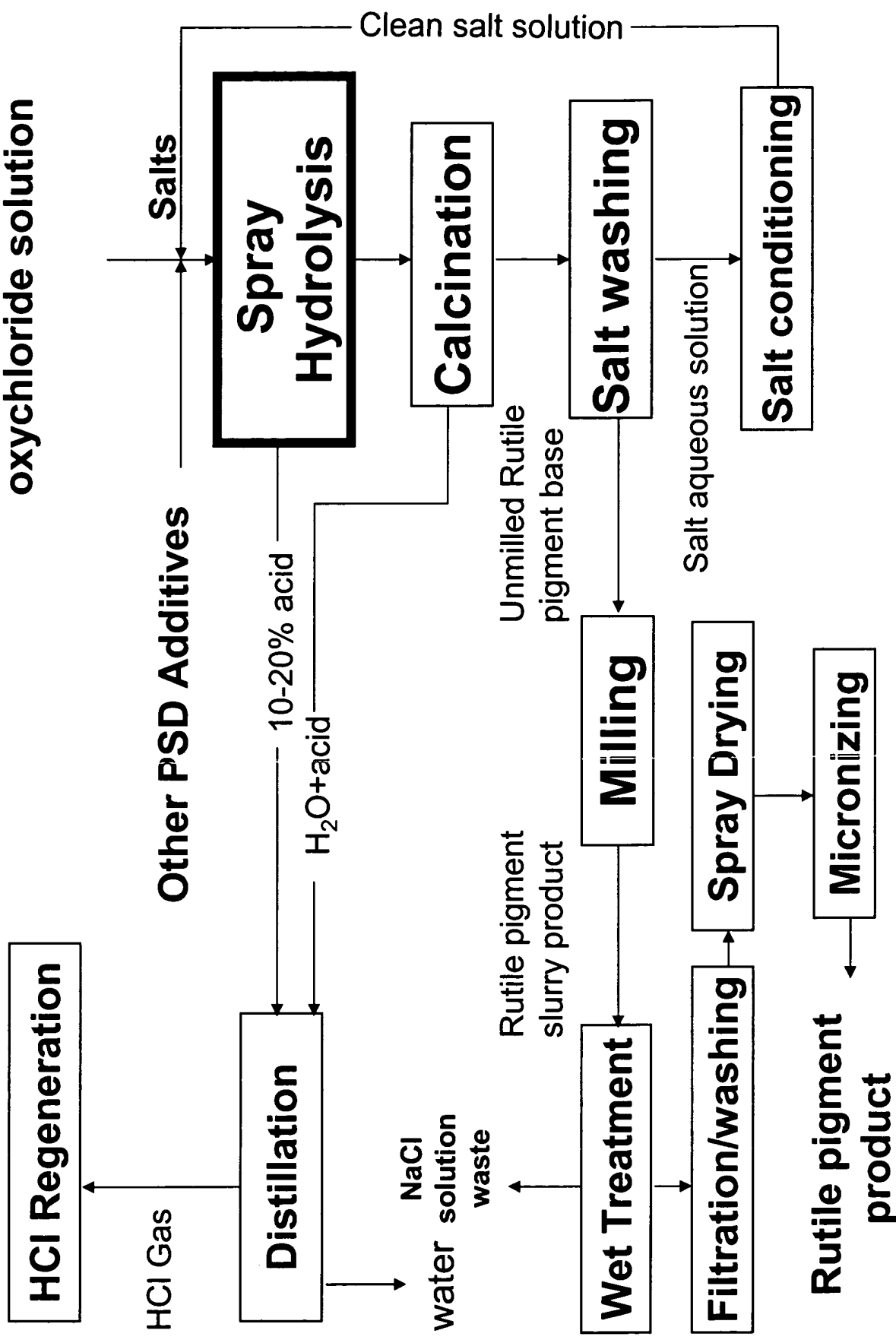


Fig 2.

**Aqueous titanium chloride or
oxychloride solution**



KCl-LiCl-NaCl

